

Amendments to the Claims

1. (Currently amended) A ~~propylene-ethylene block copolymer~~ containing polypropylene-~~b~~-poly(ethylene-~~co~~-propylene), characterized by having a weight-average molecular weight (Mw) of ~~the propylene-ethylene block copolymer~~ of 100,000 or more; a poly(ethylene-~~co~~-propylene) segment content of not less than 5 wt.% and less than 100 wt.%; and a total ethylene content of 2-95 wt.%, wherein the ~~propylene-ethylene block copolymer~~ ~~polypropylene-**b**-poly(ethylene-~~co~~-propylene)~~ has the following characteristics (a) and (b):

(a) polypropylene segments and poly(ethylene-~~co~~-propylene) segments are linked chemically; and

(b) the polypropylene segments and poly(ethylene-~~co~~-propylene) segments are synthesized in the presence of an olefin polymerization catalyst comprising an organometallic compound and a solid catalyst component comprising either titanium and a halogen or titanium, magnesium, and a halogen.

2. (Original) The propylene-ethylene block copolymer as described in claim 1, wherein the propylene-ethylene block copolymer has a molecular weight distribution index (weight-average molecular weight (Mw)/number-average molecular weight (Mn)) of 3.5 or more.

3. (Previously presented) The propylene-ethylene block copolymer as described in claim 1, wherein the propylene-ethylene block copolymer contains a xylene-soluble component during extraction by use of xylene at 20°C in an amount of 50 wt.% or less.

4. (Previously presented) The propylene-ethylene block copolymer as described in claim 1, wherein the ratio of the poly(ethylene-~~co~~-propylene) segments remaining after extraction by use of xylene at 20°C to the segments before extraction is 50 wt.% or more.

5. (Previously presented) The propylene-ethylene block copolymer as described in claim 1, wherein the ratio of the total ethylene content remaining after extraction by use of xylene at 20°C to the content before extraction is 50 wt.% or more.

6. (Previously presented) The propylene-ethylene block copolymer as described in claim 1, wherein the propylene-ethylene block copolymer has an elution-completion temperature in cross-fractionation chromatography of 100-120°C.

7. (Previously presented) The propylene-ethylene block copolymer as described in claim 1, wherein the propylene-ethylene block copolymer has a melting point (Tm) of 135°C or higher.

8. (Previously presented) The propylene-ethylene block copolymer as described in claim 1, wherein the propylene-ethylene block copolymer exhibits a melt tension at 190°C of 1.0 g or more.

9. (Previously presented) The propylene-ethylene block copolymer as described in claim 1, wherein the peak temperature of complex modulus loss tangent ($\tan\delta$) based on glass transition temperature of the PP portion of the propylene-ethylene block copolymer falls within the range of -50°C to 10°C.

10. (Previously presented) The propylene-ethylene block copolymer as described in claim 1, wherein the propylene-ethylene block copolymer exhibits a storage modulus (E') at 150°C of $(0.1\text{-}30) \times 10^7$ dyne/cm².

11. (Original) A propylene-ethylene block copolymer containing polypropylene-b-poly(ethylene-co-propylene), characterized in that the weight-average molecular weight (Mw) of the propylene-ethylene block copolymer is 100,000 or more; the poly(ethylene-co-propylene) segment content is not less than 5 wt.% and less than 100 wt.%; the total ethylene content is 2-95 wt.%; the molecular weight distribution index (weight-average molecular

weight (Mw)/number-average molecular weight (Mn)) is 3.5 or more; the propylene-ethylene block copolymer contains a xylene-soluble component during extraction by use of xylene at 20°C in an amount of 50 wt.% or less; and the ratio of the poly(ethylene-co-propylene) segments remaining after extraction by use of xylene at 20°C to the segments before extraction is 50 wt.% or more.

12. (Original) The propylene-ethylene block copolymer as described in claim 11, wherein the ratio of the total ethylene content remaining after extraction by use of xylene at 20°C to the content before extraction is 50 wt.% or more.

13. (Previously presented) The propylene-ethylene block copolymer as described in claim 11, wherein the propylene-ethylene block copolymer has an elution-completion temperature in cross-fractionation chromatography of 100-120°C.

14. (Previously presented) The propylene-ethylene block copolymer as described in claim 11, wherein the propylene-ethylene block copolymer has a melting point (Tm) of 135°C or higher.

15. (Previously presented) The propylene-ethylene block copolymer as described in claim 11, wherein the propylene-ethylene block copolymer exhibits a melt tension at 190°C of 1.0 g or more.

16. (Previously presented) The propylene-ethylene block copolymer as described in claim 11, wherein the peak temperature of complex modulus loss tangent ($\tan\delta$) based on a glass transition temperature of the PP portion of the propylene-ethylene block copolymer falls within the range of -50°C to 10°C.

17. (Previously presented) The propylene-ethylene block copolymer as described in claim 11, wherein the propylene-ethylene block copolymer exhibits a storage modulus (E') at 150°C of $(0.1\text{-}30) \times 10^7$ dyne/cm².

18. (Original) A blushing-resistant transparent polypropylene resin for molding containing polypropylene-b-poly(ethylene-co-propylene), characterized by having a poly(ethylene-co-propylene) segment content of polypropylene-b-poly(ethylene-co-propylene) of not less than 5 wt.% and less than 50 wt.% and a total ethylene content of polypropylene-b-poly(ethylene-co-propylene) of 0.25-47 wt.%, wherein the polypropylene-b-poly(ethylene-co-propylene) has the following characteristics (a) and (b):

(a) polypropylene segments and poly(ethylene-co-propylene) segments are linked chemically; and

(b) the polypropylene segments are synthesized in the presence of an olefin polymerization catalyst comprising an organometallic compound and a solid catalyst component comprising either titanium and a halogen or titanium, magnesium, and a halogen, and subsequently, the poly(ethylene-co-propylene) segments are synthesized.

19. (Original) The blushing-resistant transparent polypropylene resin for molding as described in claim 18, wherein the polypropylene-b-poly(ethylene-co-propylene) has a weight-average molecular weight (Mw) of 30,000 or more.

20. (Previously presented) The blushing-resistant transparent polypropylene resin for molding as described in claim 18, wherein the polypropylene-b-poly(ethylene-co-propylene) has a molecular weight distribution index (weight-average molecular weight (Mw)/number-average molecular weight (Mn)) of 3.5 or more.

21. (Previously presented) The blushing-resistant transparent polypropylene resin for molding as described in claim 18, wherein the polypropylene-b-poly(ethylene-co-propylene) contains a component soluble in xylene at 20°C in an amount of 50 wt.% or less.

22. (Previously presented) The blushing-resistant transparent polypropylene resin for molding as described in claim 18, wherein the polypropylene-b-poly(ethylene-co-propylene) has a melting point (Tm) of 135°C or higher.

23. (Previously presented) The blushing-resistant transparent molded article formed by molding a blushing-resistant transparent polypropylene resin for molding as recited in claim 18.

24. (Previously presented) The blushing-resistant molded article as described in claim 23, wherein molding is carried out through injection molding.

25-31. (Cancel)

32. (Previously presented) A molded article formed by molding a propylene-ethylene block copolymer containing polypropylene-b-poly(ethylene-co-propylene), characterized by having a weight-average molecular weight (Mw) of the propylene-ethylene block copolymer of 100,000 or more; a poly(ethylene-co-propylene) segment content of not less than 5 wt.% and less than 100 wt.%; and a total ethylene content of 2-95 wt.%, wherein the propylene-ethylene block copolymer has the following characteristics (a) and (b):

(a) polypropylene segments and poly(ethylene-co-propylene) segments are linked chemically; and

(b) the polypropylene segments and poly(ethylene-co-propylene) segments are synthesized in the presence of an olefin polymerization catalyst comprising an organometallic compound and a solid catalyst component comprising either titanium and a halogen or titanium, magnesium, and a halogen, and

the molded article has a flexural modulus of 100-1,200 MPa.

33. (Previously presented) The molded article as described in claim 32, wherein the propylene-ethylene block copolymer has a molecular weight distribution index (weight-average molecular weight (Mw)/number-average molecular weight (Mn)) of 3.5 or more.

34. (Previously presented) The molded article as described in claim 32, wherein the propylene-ethylene block copolymer contains a xylene-soluble component during extraction by use of xylene at 20°C in an amount of 50 wt.% or less.

35. (Previously presented) The molded article as described in claim 32, wherein the ratio of the poly(ethylene-co-propylene) segments remaining after extraction by use of xylene at 20°C to the segments before extraction is 50 wt.% or more.

36. (Previously presented) The molded article as described in claim 32, wherein the ratio of the total ethylene content remaining after extraction by use of xylene at 20°C to the content before extraction is 50 wt.% or more.

37. (Previously presented) The molded article as described in claim 32, wherein the propylene-ethylene block copolymer has an elution-completion temperature in cross-fractionation chromatography of 100-120°C.

38. (Previously presented) The molded article as described in claim 32, wherein the propylene-ethylene block copolymer has a melting point (Tm) of 135°C or higher.

39. (Previously presented) The molded article as described in claim 32, wherein the propylene-ethylene block copolymer exhibits a melt tension at 190°C of 1.0 g or more.

40. (Previously presented) The molded article as described in claim 32, wherein the peak temperature of complex modulus loss tangent ($\tan\delta$) based on glass transition temperature of the PP portion of the propylene-ethylene block copolymer falls within the range of -50°C to 10°C .

41. (Previously presented) The molded article as described in claim 32, wherein the propylene-ethylene block copolymer exhibits a storage modulus (E') at 150°C of $(0.1-30) \times 10^7$ dyne/cm².

42. (Previously presented) A molded article formed by molding a propylene-ethylene block copolymer containing polypropylene-*b*-poly(ethylene-co-propylene), characterized in that the weight-average molecular weight (M_w) of the propylene-ethylene block copolymer is 100,000 or more; the poly(ethylene-co-propylene) segment content is not less than 5 wt.% and less than 100 wt.%; the total ethylene content is 2-95 wt.%; the molecular weight distribution index (weight-average molecular weight (M_w)/number-average molecular weight (M_n)) is 3.5 or more; the propylene-ethylene block copolymer contains a xylene-soluble component during extraction by use of xylene at 20°C in an amount of 50 wt.% or less; and the ratio of the poly(ethylene-co-propylene) segments remaining after extraction by use of xylene at 20°C to the segments before extraction is 50 wt.% or more, and

the molded article has a flexural modulus of 100-1,200 MPa.

43. (Previously presented) The molded article as described in claim 42, wherein the ratio of the total ethylene content remaining after extraction by use of xylene at 20°C to the content before extraction is 50 wt.% or more.

44. (Previously presented) The molded article as described in claim 42, wherein the propylene-ethylene block copolymer has an elution-completion temperature in cross-fractionation chromatography of 100-120°C.

45. (Previously presented) The molded article as described in claim 42, wherein the propylene-ethylene block copolymer has a melting point (T_m) of 135°C or higher.

46. (Previously presented) The molded article as described in claim 42, wherein the propylene-ethylene block copolymer exhibits a melt tension at 190°C of 1.0 g or more.

47. (Previously presented) The molded article as described in claim 42, wherein the peak temperature of complex modulus loss tangent (tanδ) based on a glass transition temperature of the PP portion of the propylene-ethylene block copolymer falls within the range of -50°C to 10°C.

48. (Previously presented) The molded article as described in claim 42, wherein the propylene-ethylene block copolymer exhibits a storage modulus (E') at 150°C of (0.1-30) x 10⁷ dyne/cm².

49. (Previously presented) A molded article formed by molding a blushing-resistant transparent polypropylene resin for molding containing polypropylene-b-poly(ethylene-co-propylene), characterized by having a poly(ethylene-co-propylene) segment content of polypropylene-b-poly(ethylene-co-propylene) of not less than 5 wt.% and less than 50 wt.%, and a total ethylene content of polypropylene-b-poly(ethylene-co-propylene) of 0.25-47 wt.%, wherein the polypropylene-b-poly(ethylene-co-propylene) has the following characteristics (a) and (b):

(a) polypropylene segments and poly(ethylene-co-propylene) segments are linked chemically; and

(b) the polypropylene segments are synthesized in the presence of an olefin polymerization catalyst comprising an organometallic compound and a solid catalyst component comprising either titanium and a halogen or titanium, magnesium, and a halogen, and subsequently, the poly(ethylene-co-propylene) segments are synthesized, and

the molded article has a flexural modulus of 100-1,200 MPa and exhibits no blushing due to 300% elongation.

50. (Previously presented) The molded article as described in claim 49, wherein the polypropylene-b-poly(ethylene-co-propylene) has a weight-average molecular weight (Mw) of 30,000 or more.

51. (Previously presented) The molded article as described in claim 49, wherein the polypropylene-b-poly(ethylene-co-propylene) has a molecular weight distribution index (weight-average molecular weight (Mw)/number-average molecular weight (Mn)) of 3.5 or more.

52. (Previously presented) The molded article as described in claim 49, wherein the polypropylene-b-poly(ethylene-co-propylene) contains a component soluble in xylene at 20°C in an amount of 50 wt.% or less.

53. (Previously presented) The molded article as described in claim 49, wherein the polypropylene-b-poly(ethylene-co-propylene) has a melting point (Tm) of 135°C or higher.

54. (Previously presented) The molded article as described in claim 53, wherein molding is carried out through injection molding.

55. (Previously presented) The propylene-ethylene block copolymer as described in claim 2, wherein the propylene-ethylene block copolymer contains a xylene-soluble component during extraction by use of xylene at 20°C in an amount of 50 wt.% or less.

56. (Previously presented) The propylene-ethylene block copolymer as described in claim 12, wherein the propylene-ethylene block copolymer has an elution-completion temperature in cross-fractionation chromatography of 100-120°C.

57. (Previously presented) The blushing-resistant transparent polypropylene resin for molding as described in claim 19, wherein the polypropylene-b-poly(ethylene-co-propylene) has a

molecular weight distribution index (weight-average molecular weight (Mw)/number-average molecular weight (Mn)) of 3.5 or more.